



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,278	06/01/2006	Yoichi Yamakawa	107348-00587	3138

4372 7590 04/23/2007
ARENT FOX PLLC
1050 CONNECTICUT AVENUE, N.W.
SUITE 400
WASHINGTON, DC 20036

EXAMINER

COHEN, AMY R

ART UNIT	PAPER NUMBER
----------	--------------

2859

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/581,278

Applicant(s)

YAMAKAWA, YOICHI

Examiner

Amy R. Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 4 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 6/01/06.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities:

Claim 9, "he" at the beginning of claim 9 should read The.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchouse et al. (U. S. Patent No. 5,310,525) in view of Williams (U. S. Patent No. 5,224,373).

Regarding claims 1-3: Churchouse et al. discloses a condition indicator (Figs. 1-8), comprising at least one condition-determining face (18, 60) which is provided on a surface of a condition-determining plate (58) comprising a compound held in a base paper sheet so that the compound is exposed to the condition-determining face (Col 5, lines 59-65, Col 7, lines 28-38), whereby the condition is determined by the discoloration of the compound on the condition-determining face (Col 1, lines 5-24), characterized in that said condition indicator includes a first film (10) covering the surface of said condition-determining plate and a second film (20) covering the back of said condition-determining plate (Figs. 1-8, Col 7, lines 28-38); a flat air layer (62) is formed at least between the first film and the surface of the condition-determining

Art Unit: 2859

plate, so that the entire surface of said condition-determining face faces to said air layer (Fig. 8, Col 7, lines 28-38); and a plurality of small holes (20) are formed at distances from one another to permit the direct communication of said air layer with the atmosphere (Col 6, lines 24-47).

Churchouse et al. discloses the condition indicator wherein said first and second films are formed to protrude from an outer peripheral edge of said condition-determining plate and bonded at outer peripheral edge portions thereof directly to each other (Fig. 8, Col 7, lines 28-38).

Churchouse et al. does not disclose the condition indicator wherein the condition is humidity and the compound is cobalt chloride; wherein a plurality of said condition-determining faces are arranged at distances on the surface of said condition-determining plate in correspondence to a plurality of different condition levels, respectively.

Williams discloses a humidity indicator (10) wherein the condition is humidity and the compound is cobalt chloride (Col 5, lines 6-18); wherein a plurality of said humidity-determining faces are arranged at distances on the surface of said humidity-determining plate in correspondence to a plurality of different humidity levels, respectively (Col 5, lines 44-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the condition indicator of Churchouse et al. be a humidity indicator comprising a plurality of faces, as taught by Williams, so that a user could use the structure of the indicator of Churchouse et al. in situations requiring humidity observations and so that the user would know an actual percentage of humidity in the atmosphere in order to more accurately determine the exposure of an object to a humid atmosphere.

Regarding claims 6, 7: Churchouse et al. discloses a condition indicator (Figs. 1-8), comprising at least one condition-determining face (18, 60) which is provided on a surface of a

Art Unit: 2859

condition-determining plate (58) which is made of paper and formed into a card-shape (Col 5, lines 59-65, Col 7, lines 28-38), whereby the condition is determined by the discoloration of the compound on the condition-determining face (Col 1, lines 5-24), characterized in that said condition indicator includes a first film (10) covering the surface of said condition-determining plate and forming the surface of said condition indicator and a second film (20) covering the back of said condition-determining plate and forming the back of said condition indicator (Figs. 1-8, Col 7, lines 28-38); a flat air layer (62) is formed at least between the first film and the surface of the condition-determining plate, so that the entire surface of said condition-determining face faces to said air layer (Fig. 8, Col 7, lines 28-38); and a plurality of small holes (20) are formed at distances from one another in said first film to permit the direct communication of said air layer with the atmosphere (Col 6, lines 24-47); said first and second films are formed to protrude from an outer peripheral edge of said condition-determining plate and bonded at outer peripheral edge portions thereof directly to each other (Fig. 8, Col 7, lines 28-38); said first and second films are bonded in a compression manner to a portion of said condition determining plate surrounding a region corresponding to said air layer (Fig. 8, Col 5, lines 58-64, Col 7, lines 28-38).

Churchouse et al. does not disclose the condition indicator wherein said condition is humidity; wherein a plurality of said condition-determining faces are arranged at distances on the surface of said condition-determining plate in correspondence to a plurality of different condition levels, respectively.

Williams discloses a humidity indicator (10) wherein the condition is humidity and the compound is cobalt chloride (Col 5, lines 6-18); wherein a plurality of said humidity-determining

Art Unit: 2859

faces are arranged at distances on the surface of said humidity-determining plate in correspondence to a plurality of different humidity levels, respectively (Col 5, lines 44-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the condition indicator of Churchouse et al. be a humidity indicator comprising a plurality of faces, as taught by Williams, so that a user could use the structure of the indicator of Churchouse et al. in situations requiring humidity observations and so that the user would know an actual percentage of humidity in the atmosphere in order to more accurately determine the exposure of an object to a humid atmosphere.

4. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Churchouse et al. and Williams as applied to claims 1-3, 6, 7 above, and further in view of Dick et al. (U. S. Patent No. 6,698,378).

Churchouse et al. and Williams disclose the humidity indicator as described above in paragraph 3.

Churchouse et al. and Williams do not disclose the humidity indicator wherein that each of said films has been subjected to antistatic treatment.

Dick et al. discloses a humidity indicator (10) wherein that each of said films has been subjected to antistatic treatment (Col 6, line 62-Col 7, line 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the humidity indicator of Churchouse et al. and Williams be antistatic, as taught by Dick et al., to ensure that no dust or lint will collect on the object which may harm the object to which the humidity indicator is attached, also creating a more stable environment for the object.

Allowable Subject Matter

5. Claims 4, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose a humidity indicator comprising a flat second air layer is formed between said second film and the back of said humidity-determining plate so that at least a region or regions of said back corresponding to said humidity-determining face or faces face to the second air layer in combination with the remaining limitations of the claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose humidity indicators Carpenter et al. (U. S. Patent No. 7,185,601), Dick et al. (U. S. Patent No. 6,877,457), Dick et al. (U. S. Patent No. 6,827,218), Hansen et al. (U. S. Patent No. 6,603,318), Martin et al. (U. S. Patent No. 5,875,892), Haswell (U. S. Patent No. 5,520,041), Williams (U. S. Patent No. 3,198,163), and Blinn (U. S. Patent No. 2,716,338).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

Art Unit: 2859

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARC
April 16, 2007



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800